INCH-POUND

MIL-PRF-1/1295F
9 July 2004
SUPERSEDING
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19 July 1999

PERFORMANCE SPECIFICATION SHEET

ELECTRON TUBE, RECEIVING
TYPE 6842

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the electron tube described herein shall consist of this document and the latest issue of MIL-PRF-1.

DESCRIPTION: Pentode, high voltage, sharp cutoff.

Outline --- 5-2 (EIA) (see figure 1 for dimensions).

Base --- E7-1.

Envelope --- T5-1/2.

Cathode --- Coated unipotential.

Base connections:

Pin no.	1	2	3	4	5	6	7	Cap
Element	G2	H	K, G3	G1	K, G3	H	K, G3	a

ABSOLUTE RATINGS:

Parameter:	Ef	Eb	Ec1	Ec2	Ehk	Rg1	Ib(ave)	ib	Pp	Pg2
Unit:	V	V dc	V dc	V dc	V dc	Meg	ma	ma	W	W
Maximum:	6.9	4,000	---	150	±300	0.1	10	100	8	.5
Minimum:	5.7	---	-100	---	---	---	---	---	---	---
Test conditions:	6.3	1,500	-1.5	100	---	---	---	---	---	----

See footnotes at end of table I.

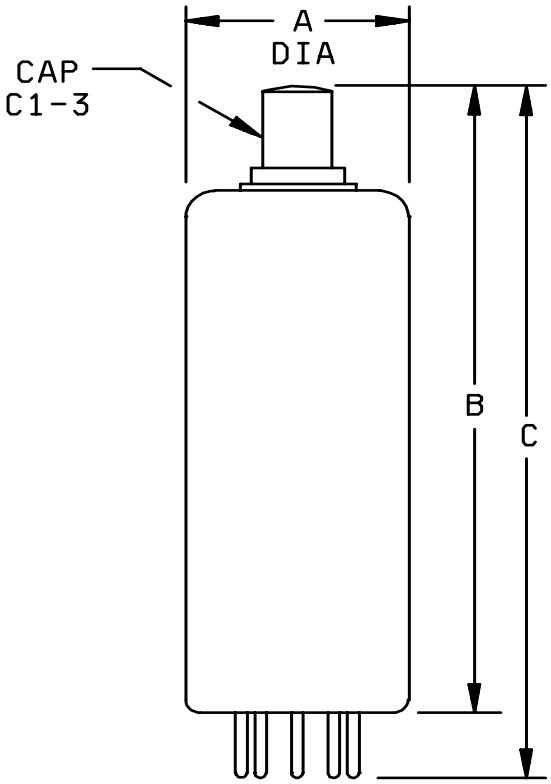
GENERAL: Qualification - Not required.

First article testing: Required (See MIL-PRF-1, appendix F).

TABLE I. Testing and inspection.

Inspection	Method MIL-STD-1311	Conditions	Acceptance Level 4/	Symbol	Limits		Unit
					Min	Max	
Conformance inspection, part 1							
Heater current	1301		---	If	135	165	mA
Heater-cathode leakage	1336	Ehk = ±100	1	Ihk	---	50	µA dc
Total grid current	1266	1/	1	Ic1	---	-0.3	µA dc
Electrode current (1) (anode)	1256	1/	1	Ib	2.6	4.5	mA dc
Electrode current (screen grid)	1256		1	Ic2	---	1.0	mA dc
Transconductance	1306		1	Sm	2,050	3,650	µmhos
Conformance inspection, part 2							
Electrode current (2) (anode) (idling)	1256	Ec1 = -10 V dc	2.5	Ibo	---	100	µA dc
Direct-interelectrode capacitance	1331	Unshielded	---	Cgp Cin Cout	--- 3.0 17.0	.040 5.0 2.3	PF pF pF
High-frequency vibration 2/	1031	Rp = 2,000 ohms; no voltages	---	Ep	---	200	mV ac
Insulation of electrodes 2/	1211		---	---	---	---	---
Permanence of marking	1105		---	---	---	---	---
Shock 2/	1041	30° hammer angle	---	---	---	---	---
Conformance inspection, part 3							
Intermittent life	1501	Group D Eb = 3,000 V dc; Ec2 = 100 V dc; RK = 2,500 ohms; Ehk = +100 V dc	---	t	500	---	Hrs
Intermittent life test end points (500 hours)	---					-	
Electrode current (1) (anode)	1256		---	---	2.0	---	mA dc
Transconductance (change of individual tubes)	1306		---	ΔSm t	---	25%	µmhos

1/ This test shall be performed at the conclusion of the holding period.
2/ This test shall be conducted on the initial lot and thereafter on a lot approximately every 12 months. When one lot has passed, the 12-month rule shall apply. In the event of lot failure, the lot shall be rejected and the succeeding lots shall be subjected to this test until a lot passes. (See 4/.)
3/ Revision letters are not used to denote changes due to the extensiveness of the changes.
4/ This specification sheet uses accept on zero defect sampling in accordance with MIL-PRF-1, table III.



Ltr	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
A	---	.750 DIA	---	19.05 DIA
B	---	2.000	---	50.80
C	---	2.250	---	57.15

FIGURE 1. Outline drawing for type 6842.

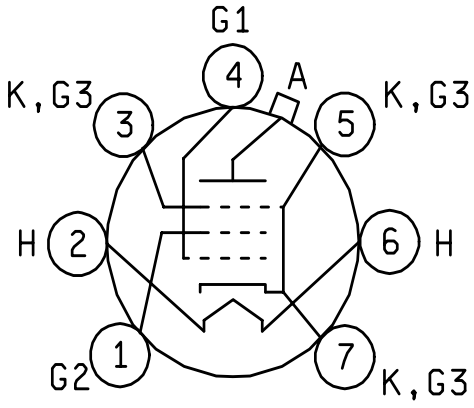


FIGURE 2. Schematic for type 6842.

NOTES

Referenced documents. In addition to MIL-PRF-1, this specification sheet sheet references MIL-STD-1311.

Changes from previous issue. The margins of this specification are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the previous issue.

Custodians:
Army - CR
Navy - EC
Air Force - 11
DLA - CC

Preparing activity:
DLA - CC

(Project 5960-3727)

Review activities:
Air Force - 99

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at www.dodssp.daps.mil.